

Appl. No. 10/797,885
Amdt. dated February 22, 2006
Reply to Notice of Non-Compliant Amendment of Feb. 6, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1(withdrawn): A check valve adapted for delayed gas pressure release, which comprises:

a body with a proximal supply end and a distal power end;
a female-threaded supply end receiver open at said supply end;
a female-threaded power end receiver open at said power end;
a passage extending between and communicating said receivers;
said passage having a frusto-conical configuration with a minimum diameter adjacent to
said supply end receiver and a maximum diameter adjacent to said power end
receiver;
a ball movably positioned within said passage between a closed position engaging said
body within said passage and an open position in spaced relation from said body
within said passage; and
a return spring located in said passage and engaging said ball, said spring biasing said ball
towards its closed position.

Claim 2 (withdrawn): The check valve according to claim 1, which includes:

a bypass extending between and communicating said passage and said supply end receiver.

Claim 3 (withdrawn): The check valve according to claim 1, which includes:

a male supply coupling adapted for connection to a compressed gas source and threadably
received in said supply end receiver.

Claim 4(withdrawn): The check valve according to claim 3, which includes:

a male power hose coupling adapted for connection to an air hose and threadably received

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in said power end receiver.

Claim 5 (withdrawn): The check valve according to claim 4, which includes:

a pair of sealing washers located between said body supply end and said male supply hose coupling and between said body power end and said male power hose coupling respectively.

Claim 6 (currently amended): A check valve adapted for delayed gas pressure release, which comprises:

a body with a proximal supply end and a distal power end;
a female-threaded supply end receiver open at said supply end;
a female-threaded power end receiver open at said power end;
a passage extending between and selectively communicating said receivers;
a seat located between said passage and said supply end receiver and including a discharge port;

said passage having a female-threaded set screw receiver adjacent to said power end receiver and a ball chamber located between said set screw receiver and said supply end receiver;

said ball chamber having a cross-sectional configuration with a central core and multiple, radially spaced, channels each extending longitudinally from said set screw receiver to said seat and having radiused channel sides adjacent to said core and a radiused channel outermost portion, said ball chamber having supply and power ends;

a ball movably position within said passage central core between a closed position engaging said seat in sealing relation and substantially closing said passage at said seat and an open position disengaged from said seat and substantially opening said

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passage:

a return spring located entirely in said passage ball chamber and engaging said ball, said spring biasing said ball towards its closed position; [[and]]
a bypass extending between and communicating said supply receiver and said passage ball chamber, said bypass being adapted to dissipate gas through said valve with said ball in its closed position and said bypass being aligned with a respective said channel;
a male-threaded set screw threadably received in said set screw receiver and having a center opening extending between and communicating said power end and said ball chamber.

said return spring including opposite ends respectively engaging said set screw and said ball:

said seat being located at the supply end of said ball chamber adjacent to said supply end receivers for substantially closing the supply end receiver with said ball in its closed position whereby a substantial seal is formed with said seat at a location distally space from said set screw; and

said return spring continuously maintaining said ball in spaced relation from said seal for unimpeded flow at maximum flow rates through said valve.

Claim 7 (cancelled)

Claim 8 (original): The check valve according to claim 6, which includes:

a male supply coupling adapted for connection to a compressed gas source and threadably received in said supply end receiver.

Claim 9 (original): The check valve according to claim 8, which includes:

a male power hose coupling adapted for connection to an air hose and threadably received

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in said power end receiver.

Claim 10 (original): The check valve according to claim 9, which includes:

a pair of sealing washers located between said body supply end and said male supply coupling and between said body power end and said male power hose coupling respectively.

Claim 11 (withdrawn): In combination with a pneumatic system including a gas compressor, a gas supply line connected to the compressor, and a flexible gas hose connected to the supply line and a pneumatic device connected to the gas hose, the improvement of a slow-release check valve, which comprises:

a body with a proximal supply end adapted for connection to said supply line and a distal power end adapted for connection to said pneumatic device;

a female-threaded supply end receiver open at said supply end;

a male supply coupling connected to said supply line and threadably received in said supply end receiver;

a female-threaded power end receiver open at said power end;

a male power hose coupling connected to said pneumatic device and threadably received in said power end receiver;

a passage extending between and communicating said receivers;

said passage having a frusto-conical configuration with a minimum diameter adjacent to said supply end receiver and a maximum diameter adjacent to said power end receiver;

a ball movably position within said passage between a closed position engaging said body within said passage and an open position in spaced relation from said body within

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said passage; and

a return spring located in said passage and engaging said ball and said male power coupling, said spring biasing said ball towards its closed position.

Claim 12 (withdrawn): The combination according to claim 11, which includes:

a bypass extending between and communicating said passage and said supply end receiver.

Claim 13 (withdrawn): The combination according to claim 11 wherein said male supply coupling comprises a quick-disconnect type of coupling adapted for closing said gas supply line and disconnecting said hose therefrom.

Claim 14 (withdrawn): The combination according to claim 11, which includes:

a pair of sealing washers located between said body supply end and said male supply coupling and between said body power end and said male power hose coupling respectively.

Claim 15 (withdrawn): The combination according to claim 11, which includes said return spring having a tapered, helical configuration.